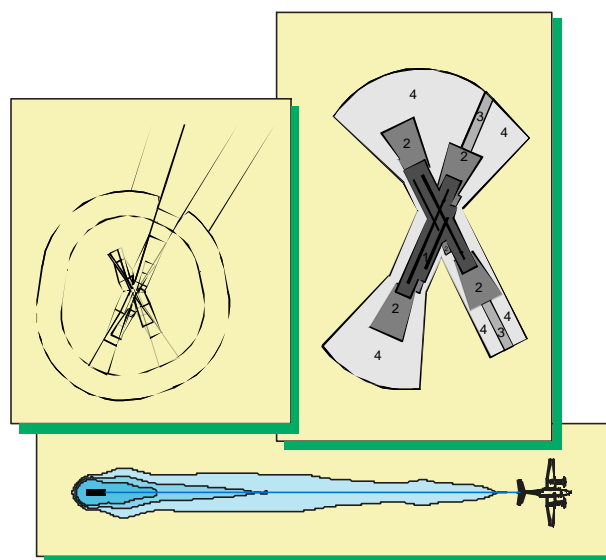


Buchanan Field Airport Policies

3



Buchanan Field Airport Policies

BUCHANAN FIELD AIRPORT COMPATIBILITY POLICIES

5.

5.1. General

5.1.1. *Airport Influence Area*

- (a) The Buchanan Field Airport influence area (Figure 3A) is defined by the outer edge of the airport's Federal Aviation Regulations (FAR) Part 77 conical surface. This area extends 14,000 feet from the ends of the primary surfaces for Runways 1L-19R and 14L-32R.
- (b) The airport influence area encompasses locations commonly overflown by aircraft as they approach and depart the airport or fly within the traffic pattern. Aircraft may overfly these locations at or below the established traffic pattern altitude (1,000 feet above the airport elevation for light aircraft; 1,500 feet for jets and other large aircraft).

- 5.1.2. *Primary Land Use Compatibility Criteria* — The primary criteria for assessing whether a land use plan, ordinance, or development proposal is to be judged compatible with Buchanan Field Airport activity are set forth in the remainder of this section.

- 5.1.3. *Countywide Compatibility Criteria* — In addition to the compatibility criteria specifically for Buchanan Field Airport as set forth in this chapter, the countywide policies listed in Chapter 2 shall also be applied to the review of land use development proposals in the airport vicinity. In particular, reference is made to the following:
- (a) Policies pertaining to the review of general plans (Countywide Policy 2.4.3);
 - (b) Consideration for special conditions (Countywide Policy 2.4.4); and

- (c) Supplemental compatibility criteria (Countywide Policies, Section 4).

5.2. Noise Compatibility Criteria

- 5.2.1. *Noise Contours* — A composite of current and projected future noise contours, as shown in Figure 3B, shall be used as the basis for evaluating the aircraft-related noise levels to which nearby property is subjected.
- 5.2.2. *Acceptable Noise Levels, Single-Family Residential* — New single-family, duplex, and mobile home residential uses are considered normally acceptable at noise exposures up to 55 dB CNEL and marginally acceptable at exposures between 55 and 65 dB CNEL.
- 5.2.3. *Acceptable Noise Levels, Other Land Uses* — Acceptable noise levels for new multi-family residential development and other land uses in the environs of Buchanan Field are as listed in Table 3A.
 - (a) The extent of outdoor activity associated with a particular land use is an important factor to be considered in evaluating its compatibility with airport noise, particularly for those uses listed in Table 3A as “marginally acceptable.”
- 5.2.4. *Interior Noise Levels* — Countywide criteria apply. See Countywide Policy 4.1.4.
- 5.2.5. *Deed Notice* — As a condition for approval of any new development within the 60-dB CNEL contour, a notice indicating that the property is subject to frequent aircraft noise intrusion shall be recorded with the deed.

5.3. Safety Compatibility Criteria

- 5.3.1. *Safety Zone Boundaries* — The boundaries of the Buchanan Field Airport Safety Zones referred to in the following policies are depicted in Figure 3C.
- 5.3.2. *Safety Zone 1*
 - (a) No new structures are permitted other than aeronautical facilities the location of which is set by FAA Criteria.
 - (b) Storage of fuel and other hazardous materials is prohibited.
- 5.3.3. *Safety Zone 2*
 - (a) Land uses shall be limited to a maximum of 30 people per acre or 1 person per 500 square feet of gross building floor area.

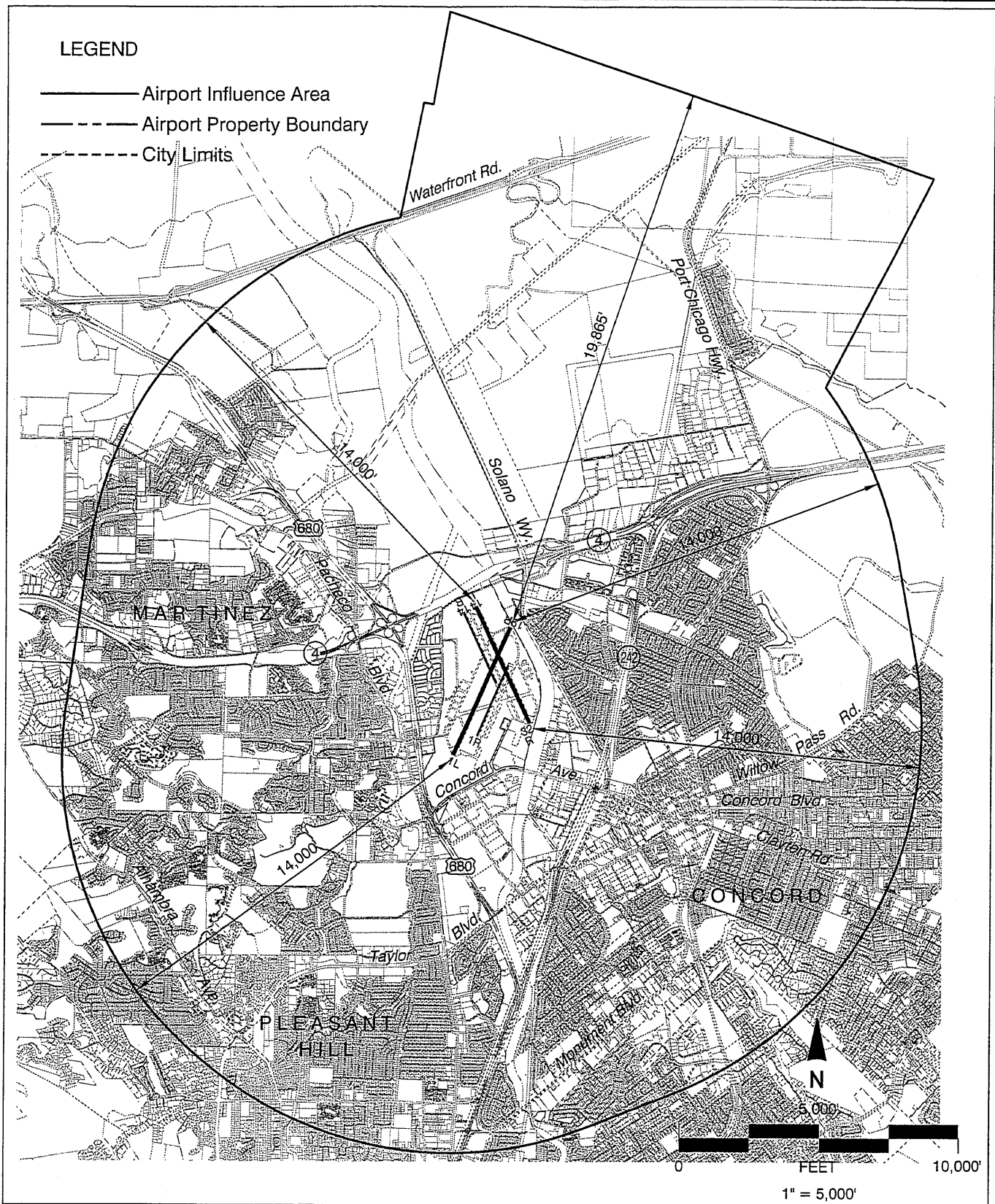


Figure 3A

Airport Influence Area

Buchanan Field Airport

- (1) Hotels, restaurants, shopping centers, theaters, and other places of public assembly typically do not comply with this criterion, but are acceptable if the usage is limited through building design, use permit, and/or other mechanisms.
- (b) Buildings shall have no more than two habitable floors above ground.
- (c) Residences, children's schools (through grade 12), day care centers, hospitals, and nursing homes are specifically prohibited.
- (d) Aboveground bulk storage of hazardous materials is prohibited with the exception of:
 - (1) On-airport storage of aviation fuel and other aviation-related flammable materials.
 - (2) Up to 2,000 gallons of nonaviation flammable materials.

5.3.4. *Safety Zone 3*

- (a) Land uses shall be limited to a maximum of 125 people per acre.
 - (1) Fast food restaurants, major shopping centers, theaters, and other places of public assembly typically do not comply with this criterion, but are acceptable if the usage is limited through building design, use permit, and/or other mechanisms.
- (b) Buildings shall have no more than three habitable floors above ground.

However, if a building is proposed to have more than two habitable floors above ground, then the project shall provide for a disaster management plan to facilitate the rapid evacuation of building occupants in the event of an aircraft accident involving the building.
- (c) Residences, children's schools (through grade 12), hospitals, and nursing homes are specifically prohibited.
- (d) Aboveground storage of more than 2,000 gallons of fuel or other hazardous materials is prohibited.

5.3.5. *Safety Zone 4*

- (a) Land use intensity is not limited other than that buildings shall have no more than four habitable floors above ground.
- (b) Aboveground storage of more than 2,000 gallons of fuel or other hazardous materials is prohibited in existing or planned residential or commercial areas.

5.3.6. *Risk Reduction Through Building Design* — Within *Safety Zones 2 and 3*, higher in-

tensity uses may be permitted for buildings which incorporate special risk-reduction design features in accordance with Countywide Policy 4.2.4. (The intensity bonus is not applicable within *Safety Zone 4* in that no limit is set on the number of people per acre.) Any such intensity bonus shall be limited as follows:

- (a) Within *Safety Zone 2*: a maximum of 45 people per acre (i.e., 1.5 times the basic intensity criterion for this zone).
- (b) Within *Safety Zone 3*: a maximum of 250 people per acre (i.e., 2.0 times the basic intensity criterion for this zone).

5.4. **Airspace Protection Criteria**

5.4.1. *Basic Height Limitations* — For protection of the airport's airspace, limits on the

height of objects in the vicinity of Buchanan Field Airport are required. The basic limitations are set in accordance with FAR Part 77 surfaces and TERPS criteria as described in Countywide Policy 4.3.1.

- (a) The airspace protection surfaces for Buchanan Field Airport are shown in Figure 3D.
- (b) No objects shall be permitted to exceed these height limits unless the ALUC has either established a *Height Exception Overlay Zone* or granted a case-specific exception as described in the following policies.
- (c) Within the Critical TERPS Airspace northeast of the airport, a Federal Aviation Administration aeronautical study shall be conducted for any proposed object having a height greater than 100 feet above mean sea level. This review is necessary to assure that such objects would not adversely affect existing instrument approach procedures.

5.4.2. *Height Exception Overlay Zones 1 and 1**

- (a) As shown in Figure 3D:
 - (1) Structures having a height up to 279 feet above mean sea level (approximately 250 feet above ground level) are permitted within *Height Exception Overlay Zone 1*.
 - (2) Additionally, within the area up to 100 feet west of *Overlay Zone 1* — designated as *Height Exception Overlay Zone 1** — proposed structures are permitted to have a height equal to the lower of:
 - < Structures within the westernmost 400 feet of *Height Exception Overlay Zone 1*; or
 - < 279 feet above mean sea level.

- (b) This policy notwithstanding, ALUC review and a Federal Aviation Administration aeronautical study shall be required for any new structure taller than 150 feet above ground level which may be proposed for these zones. Obstruction marking and lighting of such structures may be required.
- 5.4.3. *Height Exception Overlay Zone 2* — This overlay zone encompasses locations where the ground level penetrates the airspace surfaces defined by FAR Part 77.
 - (a) FAR Part 77 criteria notwithstanding, new structures or additions to existing structures proposed for construction within *Height Exception Overlay Zone 2* are permitted to have a total height, including all appurtenances, up to 45 feet above ground level at the site.
 - (b) A Federal Aviation Administration aeronautical study is required of any proposed object taller than 45 feet above ground level in this zone.
- 5.4.4. *Height Limit Exceptions* — Exceptions to the preceding height limits may be granted on a case-by-case basis in accordance with Countywide Policy 4.3.2.
- 5.4.5. *Avigation Easement Dedication* — In accordance with Countywide Policy 4.3.3, dedication of an avigation easement to the county of Contra Costa shall be required as a condition for development approval in the following critical locations near Buchanan Field Airport:
 - (a) On privately owned property adjacent to and immediately beyond the runway ends where the FAR Part 77 approach and transitional surfaces are less than 50 feet above the ground elevation. Most of these locations lie within *Safety Zone 2*.
 - (b) Within *Height Exception Overlay Zones 1 and 1**.
 - (c) Within *Height Exception Overlay Zone 2* if any object, including trees, will be taller than 45 feet above ground.
 - (d) Anywhere a case-specific height limit exception is granted.

Land Use Category	CNEL (dB)				
	50–55	55–60	60–65	65–70	70–75
<i>Residential</i>					
single-family, mobile homes	+	0	0	--	--
multi-family, apartments, condominiums	++	+	0	--	--
<i>Public</i>					
schools, libraries, hospitals, nursing homes	+	+	0	--	--
churches, auditoriums, concert halls	+	+	0	-	--
transportation, parking, cemeteries	++	++	++	+	0
<i>Commercial and Industrial</i>					
motels, hotels	++	+	0	-	-
offices, retail trade	++	+	0	0	-
service commercial, wholesale trade, warehousing, light industrial	++	++	+	0	0
general manufacturing, utilities, extractive industry	++	++	++	+	+
<i>Agricultural and Recreational</i>					
cropland	++	++	++	++	+
livestock breeding	++	+	0	0	-
parks, playgrounds, zoos	++	+	+	0	-
golf courses, riding stables, water recreation	++	++	+	0	0
outdoor spectator sports	++	+	+	0	-
amphitheaters	+	0	-	--	--

Land Use Acceptability	Interpretation/Comments
++ <i>Clearly Acceptable</i>	The activities associated with the specified land use can be carried out with essentially no interference from the noise exposure.
+ <i>Normally Acceptable</i>	Noise is a factor to be considered in that slight interference with outdoor activities may occur. Conventional construction methods will eliminate most noise intrusions upon indoor activities.
0 <i>Marginally Acceptable</i>	The indicated noise exposure will cause moderate interference with outdoor activities and with indoor activities when windows are open. The land use is acceptable on the condition that outdoor activities are minimal and construction features which provide sufficient noise attenuation are used (e.g., installation of air conditioning so that windows can be kept closed). Under other circumstances, the land use should be discouraged.
- <i>Normally Unacceptable</i>	Noise will create substantial interference with both outdoor and indoor activities. Noise intrusion upon indoor activities can be mitigated by requiring special noise insulation construction. Land uses which have conventionally constructed structures and/or involve outdoor activities which would be disrupted by noise should generally be avoided.
-- <i>Clearly Unacceptable</i>	Unacceptable noise intrusion upon land use activities will occur. Adequate structural noise insulation is not practical under most circumstances. The indicated land uses should be avoided unless strong overriding factors prevail and should be prohibited if outdoor activities are involved.

Table 3A

Noise Compatibility Criteria

Buchanan Field Airport Environs

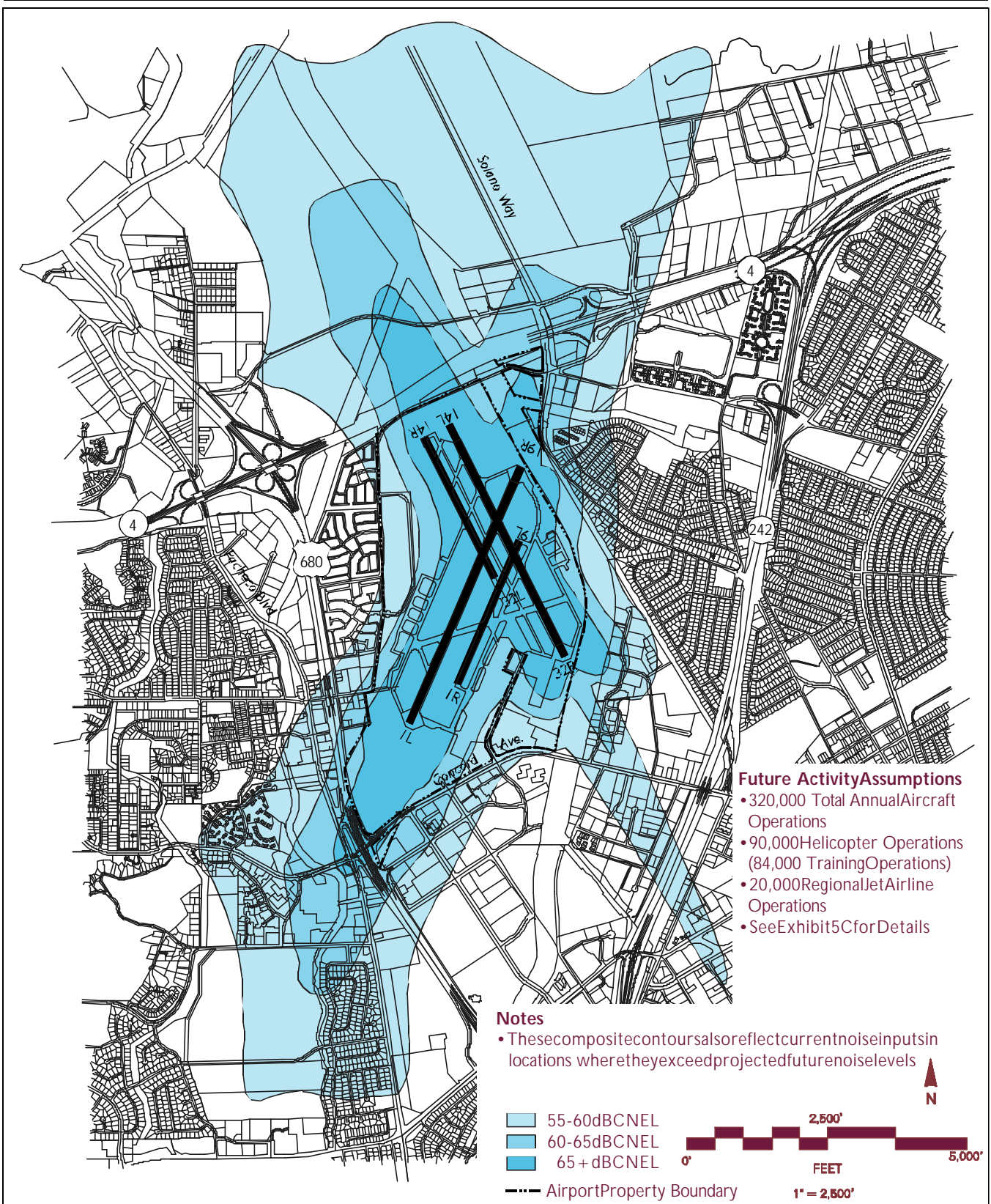


Figure 3B

Composite Noise Contours

Buchanan Field Airport

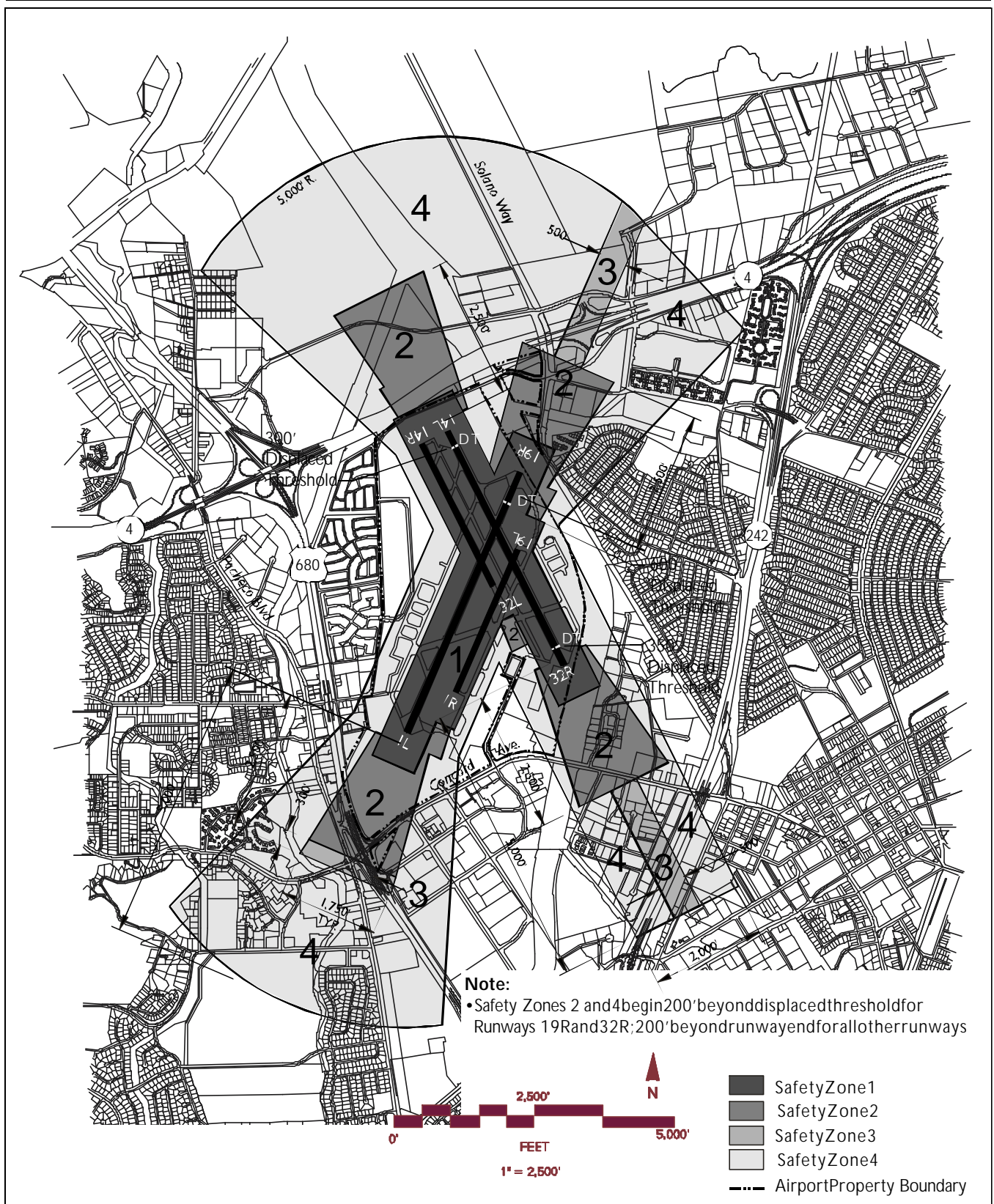


Figure 3C

Safety Zones Buchanan Field Airport

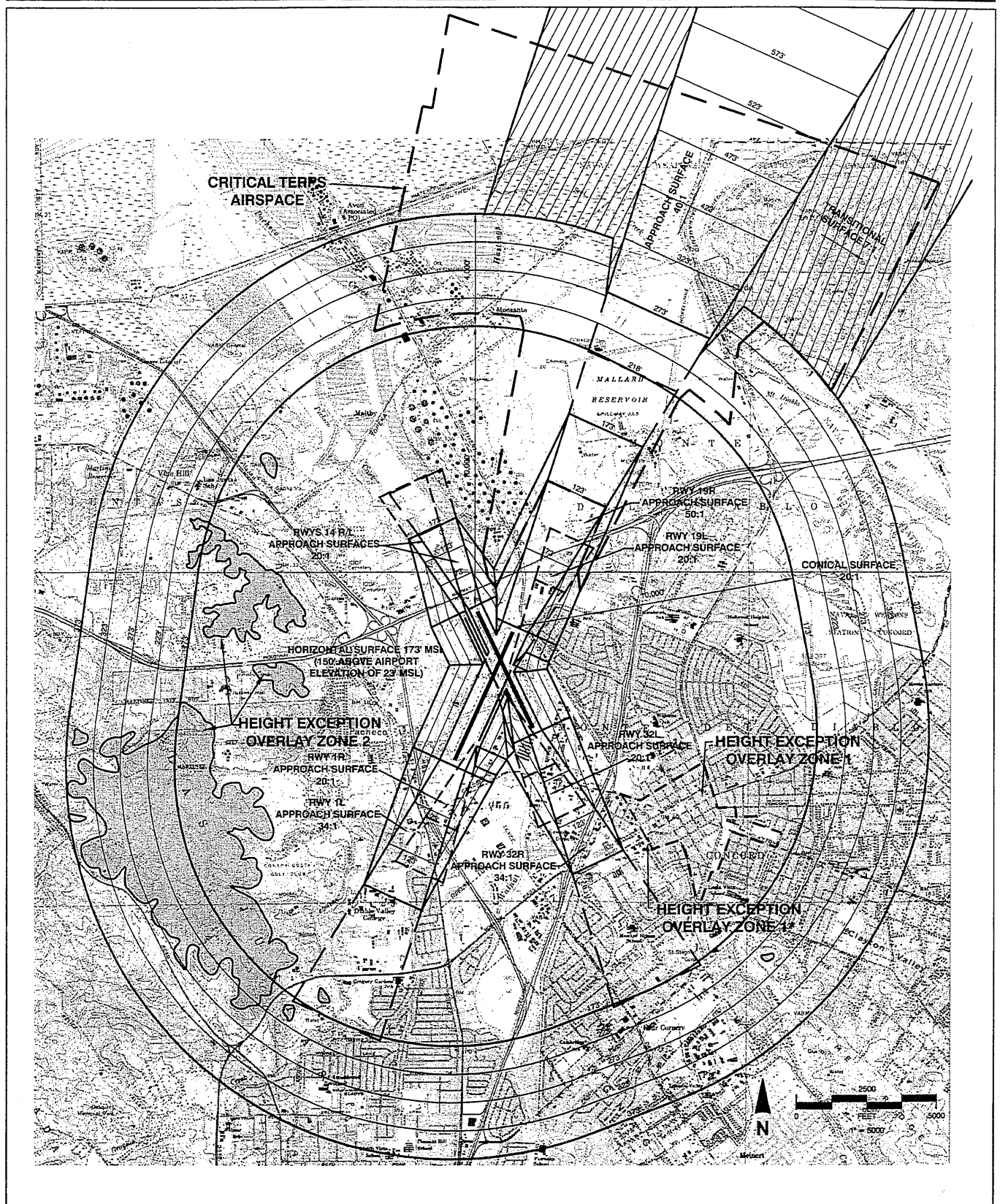


Figure 3D

Airspace Protection Surfaces

Buchanan Field Airport